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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/502,699

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Michael F. Grant

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11/18/2004

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EXAMINER

MEHRA, INDER P

ART UNIT

PAPER NUMBER

2666

DATE MAILED: 11/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/502,699

Applicant(s)

GRANT ET AL.

Examiner

Inder P Mehra

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is in response to application dated: 7/2/04. Based on this amendment, claims 1, 3, 9, 12, 18, 19, 22, 24, 27, 31, 35, 40 and 44. Claim 44 shows no amendment (with emphasis or underline), therefore, amendment is not explicit in the context of the claim.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-35, and 40-42 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Following limitations are not supported by specifications:

- as amended in claims 1, 9, “wherein a first of the gateways accesses the core network via an isolated connection to a second of the gateways when an isolated connection to the first gateway is unable to support access to the core network”
- “ as recited by claim 18, when an isolated connection to said one of said distribution gateways is unable to support access to the core network”.
- “ as recited by claim 24, when an isolated connection to the home gateways is unable to support access to the core network”.

Art Unit: 2666

- “as recited by claim 31, when the isolated connection resources to the home-gateways are unable to support access to the core network”.
- “as recited by claim 40, when the direct isolated connection to the first home-gateway is unable to fully support access to the network”.

Specifications Page and lines be quoted, or appropriate correction be made.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 39 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 39 (line 11) recite the limitation "the codes". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-2, 5, 9, 11, 14, 18-19, 21, 24-26, 29, 31-32, 34, 40, 41 and 43 are rejected under 35 U.S.C. 102(b) as being anticipated by **Kamm et al** (US Patent No. 5,457,680), hereinafter, **Kamm**.

For claims 1, 9, 18, 24-25, 31, 40, 41 and 43 Kamm discloses, in reference to figs. 1 and 1A, a communication system comprising a core network (data communication network) coupled over multiple isolated connections to a plurality of distribution gateways Home (mobile data gateway) each providing network access capability to local data devices (mobile data radio terminals SU-1 through SU-3 and mobile voice telephone units) serviceable thereby , at least some of the plurality of distribution gateways interconnected through communication resources (backbone 102 in fig. 1A), refer to col. 3 lines 40-45 and wherein said interconnected distribution gateways each includes:

- control functionality (CPU120 in fig. 1A) arranged to administer access to the core network (data communication network 100) through securing network access capability using the interconnected distribution gateways, as recited by claim 40, (refer to 104 and 204 in figs. 1 and 1A) via at least one of the multiple isolated connections (T1 in fig. 1, refer to fig. 1A), refer to col. 5 lines 55-65.
- as amended in claims 1, 9, “wherein a first of the gateways accesses the core network via an isolated connection to a second of the gateways when an isolated connection to the first gateway is unable to support access to the core network”, (this limitation is disclosed by Kamm, refer to col. 10 lines 39-49 and col. 26 lines 50-60, wherein reallocation of route via second base station is made if the current strength of signal is poor).
- Interconnecting at least some of the plurality of distribution to provide communication paths there between, as recited by claim 18, refer to 102 in figs. 1 and 1A.

Art Unit: 2666

- code arbitrates interconnection of the home-gateway with at least one further home gateway connectable to the core network, **as recited by claim 31**, refer to figs. 1 and 1A;
- wherein the codes reside in a computer readable medium, **as recited by claim 31**, refer to CPU120 in fig. 1A, refer to col. 5 lines 64-66.
- the consolidation function is operable having regard to congestion conditions on the multiple isolated connection, as recited by claim 42, refer to col. 12 lines 40-45, col. 12 lines 49-51;
- “encrypting communications between an associated device and the core network”, **as recited by claim 43**, refer to col. 21 lines 50-55.

For claims 2, 11, 19, 26 and 32, Kamm discloses the communication system of claim 1, as above, wherein the control functionality operates according to at least one of:

- a bandwidth-driven requirement (If mobile data gateway determines –additional bandwidth is required---or does not warrant as many channels----add or delete), refer to col. 12 lines 56-61;
- a fault driven basis to secure access to the core network (determines if third the third signal measurement data is better than the first signal measurement data and second signal measurement data and if so----allocates with the server mobile data gateway, a new channel at the third base station-----), refer to col. 3 line 55 through col. 4 line 3.

For claims 5, 14, 21, 29, 34 and 43, Kamm discloses , “encrypting communications

Art Unit: 2666

between an associated device and the core network”, refer to col. 21 lines 50-55.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 3, 12, 27 and 42 are rejected under 35 U.S.C. 103(a) as being obvious over

Kamm et al (US Patent no. 5,457,680), hereinafter, Kamm in view of **Mahalingaiah et al** (US Patent No. 6,654,346), hereinafter, Mahalingaiah.

For claims 3, 12, 27 and 42, Kamm discloses all the limitations of subject matter, as above in paragraph 7, with the exception of the following limitations:

- wherein the control functionality includes a prioritization function (**as recited by claim 42**) that secures a guaranteed minimum bandwidth for communication with network for associated data equipment,.
- Mahalingaiah discloses, “wherein the control functionality includes a prioritization function that secures a guaranteed minimum bandwidth for communication with network for associated data equipment, refer to col. 6 lines 8-16.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the capability of prioritization function. The capability can be implemented by combining the system as taught by Kamm and Mahalingaiah at the Home media gateway. The suggestion/motivation to do so would have been to use the shared resources.

10. Claims 4, 13, 20, 28, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kamm** as applied to claims 1, 9, 18, 24, 31 above, and further in view of **Shionozaki** (US Patent No. 6,496,479).

For claims 4, 13, 20, 28, and 33, Kamm discloses all the limitations of subject matter, as in paragraph 7 above, with the exception of the following limitation:

- wherein at least some of the isolated connections are point-to-point connections supporting digital subscriber line communications;

Shionozaki discloses, “wherein at least some of the isolated connections are point-to-point connections supporting digital subscriber line communications”, refer to col. 8 lines 4-7, col. 7 lines 40-45.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the capability of using point-to-point connections supporting digital subscriber line. The capability can be implemented by combining the system as taught by Kamm and Shionozaki at the Home media gateway. The suggestion/motivation to do so would have been to provide digital communication to the subscribers at high speed.

11. Claims 6-8, 10, 15-17, 22-23, 30, 35-36 and 38-39 are rejected under 35 U.S.C. 103(a) as being obvious over **Kamm**, as applied to claims 1, 9, 18, 24 and 31 above, in view of **Davis et al** (US Patent No. 6,167,389), hereinafter, Davis.

For claims 6-8, 10, 15-17, 22-23, 35-36 and 38-39, Kamm discloses all the limitations of the subject matter with the exception of the following limitations, intermediate node:

- an optical transceiver for converting optical communications into electrical impulses, **as recited by claims 6 and 15**; and
- a transceiver coupled to a plurality of distribution points whereby the plurality of distribution points acquire access to the core network via the optical fiber, **as recited by claims 6 and 15**.
- “wherein the communication resources interconnecting -----include at least one of RF channel resources, optical connections, LAN (recited by claim 30), and wire line connections, **as recited by claims 7, 16, 22, 30, 35 and 38**;
- “a billing center coupled to the core network, the billing center configured to generate and record varying levels of charges for access to the core network in response to use by a distribution gateway and the core network, **as recited by claims 8, 17, 23, 36 and 39**.
- where the control functionality provides a routing function for broadband communications between a plurality of interconnected distribution gateways, **as recited by claim 10**

Davis discloses the following limitations:

- an optical transceiver for converting optical communications into electrical impulses, **as recited by claims 6 and 15**; refer to 40a, 40b and 40c in fig. 1 and col. 5 lines 18-25 and
- a transceiver coupled to a plurality of distribution points whereby the plurality of distribution points acquire access to the core network via the optical fiber, **as recited by claims 6 and 15**, refer to fig. 1 and fig. 2, col. 6 lines 51 and 64.

Art Unit: 2666

- “wherein the communication resources interconnecting -----include at least one of RF channel resources, optical connections and wire line connections, **as recited by claims 7, 16, 22, 35 and 38**;refer to col.4 line 44.
- “a billing center coupled to the core network, the billing center configured to generate and record varying levels of charges for access to the core network in response to use by a distribution gateway and the core network, **as recited by claims 8, 17, 23 and 36**, refer to col. 6 lines 15-28.
- recording the varying level of charge in a database for subsequent billing purposes, **as recited by claims 36 and 39**, refer to col. 6 lines25-28.
- where the control functionality provides a routing function for broadband communications between a plurality of interconnected distribution gateways, **as recited by claim 10**, refer to col. 4 lines 38-40.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the capability of optical fiber, RF channel, broadband and billing charges. The capability can be implemented by combining the system as taught by Kamm and Davis at the Home media gateway or subscriber's unit. The suggestion/motivation to do so would have been to provide digital communication to the subscribers at high speed (optical fiber).

12. Claims 37 is rejected under 35 U.S.C. 103(a) as being obvious over **Kamm** in view of **Davis et al.** as applied to claim 36 above, further in view of **Shionozaki** (US Patent No. 6,496,479).

Art Unit: 2666

For claim 37, Kamm discloses all the limitations of the subject matter, with the exception of the following limitation:

- the isolated connections are point-to-point connections supporting digital subscriber line communications;

Shionozaki discloses, “wherein the isolated connections are point-to-point connections supporting digital subscriber line communications”, refer to col. 8 lines 4-7, col. 7 lines 40-45.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the capability of using point-to-point connections supporting digital subscriber line. The capability can be implemented by combining the system as taught by Kamm, Davis and Shionozaki at the Home media gateway. The suggestion/motivation to do so would have been to provide digital communication to the subscribers at high speed.

Allowable Subject Matter

13. Claims 44-46 are allowed.

Response to Arguments

14. Applicant's arguments filed 7/2/04 have been fully considered but they are not persuasive.

Applicant argues that Kamm does not teach how the ability of an isolated connection between a gateway and a core network to support access to the core network determines whether a direct or indirect connection is used between the gateway and the core network.

In response, it is stated that “the ability of an isolated connection to determine” is not claimed. Instead, control functionality administers access to the core network, which is a failover

Art Unit: 2666

to second gateway. This is explicitly disclosed by Kamm, refer to 10 lines 39-49 col. 26 lines 50-60.

Further, the following limitations are not supported by specifications:

- as amended in claims 1, 9 “wherein a first of the gateways accesses the core network via an isolated connection to a second of the gateways when an isolated connection to the first gateway is unable to support access to the core network”
- “as recited by claim 18, when an isolated connection to said one of said distribution gateways is unable to support access to the core network”.
- “as recited by claim 24, when an isolated connection to the home gateways is unable to support access to the core network”.
- “as recited by claim 31, when the isolated connection resources to the home-gateways are unable to support access to the core network”.
- “as recited by claim 40, when the direct isolated connection to the first home-gateway is unable to fully support access to the network”.

Specifications Page and lines be quoted, or appropriate correction be made.

However, this limitation is disclosed by Kamm, refer to col. 10 lines 39-49 and col. 26 lines 50-60, wherein reallocation of route via second base station is made if the current strength of signal is poor.

In light of above explanation, arguments by applicant are persuasive.

Art Unit: 2666

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Inder P Mehra whose telephone number is 571-272-3170. The examiner can normally be reached on Monday through Friday from 8AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2666

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Inder P Mehra
Examiner
Art Unit 2666



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